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tion. Unlike most other stations, the distribution of observing nights is very uniform throughout the year; there is no long unfavorable season. There are slightly more clear nights in winter, which is the dry season, than in summer, usually. A sample of the observing conditions during the past year may be had in the case of Halley's Comet. From November 30, 1909, when the comet was first observed, until February 3, 1910, when it was discontinued until after passing the Sun, observations were secured on forty-six nights out of sixty-six, including losses because of the Moon. From April 17th, when observations were resumed, to July 10th photographic observations were secured on sixty-seven nights out of a possible eighty-five. This winter has been a little more favorable than usual perhaps, but from two hundred to two hundred and fifty nights may be counted upon in the average year.

It is planned to send an expedition into the Sierras the coming summer to secure some photographic observations, and to obtain further data to aid in the selection of the most suitable observing station for a large telescope.

The chief energies of the observatory for several years must be devoted to astrometry, in which it has a number of obligations. It is hoped, however, to devote a portion of our resources to some of the modern problems.

RÉSUMÉ OF OBSERVATIONS OF HALLEY'S COMET AT CÓRDOBA.

By C. D. Perrine.

Theoretically, Halley's Comet became bright enough to be seen with our 12-inch equatorial about the first of December, 1909. It was first looked for on November 30th and found to be much brighter than was expected. From this date until February 3d it was observed for position. Estimates of size and brightness were made also. Observations were secured on twenty-one nights in December, twenty-two in January, and two in February, or forty-six nights in all. Observations were discontinued after February 3d because the comet was then much better placed for northern observers, and any observations here would have been made at large zenith distances.

The comet was glimpsed on April 12th by Señor CHAUDET, but cloudy weather prevented observations until April 17th (astronomical time). Micrometer observations were made until the twenty-first, when the astrographic telescope was giving good position plates and the micrometer work was discontinued. During the period of greatest brightness all position observations were secured with the astrographic telescope, as follows:

April 18 to 30, on	9 nights
May, on	22 "
June, on	23 "
July, on	14 "
August, on	3 "

Micrometer observations were resumed on August 6th and continued until August 22d, after which the comet was too low to be observed satisfactorily. It was seen on August 25th, but too far from a star (at such a large zenith distance) to make a good observation possible. It was very faint also.

The plan for photographic observations included position plates and others for details, with the astrograph; photographs with the 5-inch portrait lens for structure and extra-focal images for photometric determinations. It was also planned to secure a series of objective prism photographs with the portrait lens, but the prism which was ordered in October, 1909, has not yet arrived. Some observations were secured, however, with two small improvised instruments.

A very small camera was improvised to photograph the great extension of tail.

About four hundred negatives were secured with all the instruments. Short and long exposures were made with the astrographic telescope during the period of sufficient brightness and an excellent series of photographs obtained showing the detail in the head and inner tail. There is in general a complete change of structure in this region from day to day.

The series with the portrait lens is equally extensive and shows the outer nebulosity of the head and the tail.

Both of these series were continued into July. After the first week of July the comet was too faint and too small to justify such exposures.

Extra-focal negatives were secured with the portrait lens during the same period. This series comprises observations on forty nights between April 21st and July 8th.

A small objective-prism spectrograph was improvised with a 60° prism which was kindly loaned by the Department of Physics of the University of La Plata, and two lenses belonging to the observatory. One lens had a focal length of 65 centimeters and was used from May 21st to June 4th. The other had a focal length of 16 centimeters and aperture of 52 millimeters. This short focus lens was used from June 5th to July 28th, inclusive. Observations were secured with these two instruments on forty nights.

A small camera was constructed, using the field lens of an eye-piece. This lens has a diameter of 38 millimeters and focal length of approximately 5 centimeters; the field embraced was approximately 50° in diameter. The spherical aberration was large, but the lens served to record such a large diffuse area as the tail of this comet. Photographs were secured with this little instrument on May 5th, 6th, 7th, 8th, 11th, 12th, 13th, 17th, and 18th.

Probably the most interesting outburst recorded by our series of photographs was that which appears to have occurred about June 6.0 G. M. T. It is well shown on our plates with the portrait lens taken June 6th at 12^h G. M. T. and on the following two nights. The spectrum of this dislocation of the tail was recorded with the small objective-prism spectrograph on the same night. A casual examination shows no material difference in constitution between this outburst and the normal tail of the night before.

Many attempts were made to follow the comet with the 12-inch equatorial until after sunrise, with a view of obtaining meridian circle observations, but in no case could it be seen as late as sunrise.

The observations, including reproductions of a large number of the photographs obtained, will be issued in a special volume of the observatory publications.

OBSERVATORIO NACIONAL ARGENTINO,
CÓRDOBA, August 28, 1910.